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# AREI **UPDATES**

Updates on Agricultural Resources and Environmental Indicators

Number 4 May 1996

## Organic Vegetable Growers Surveyed in 1994

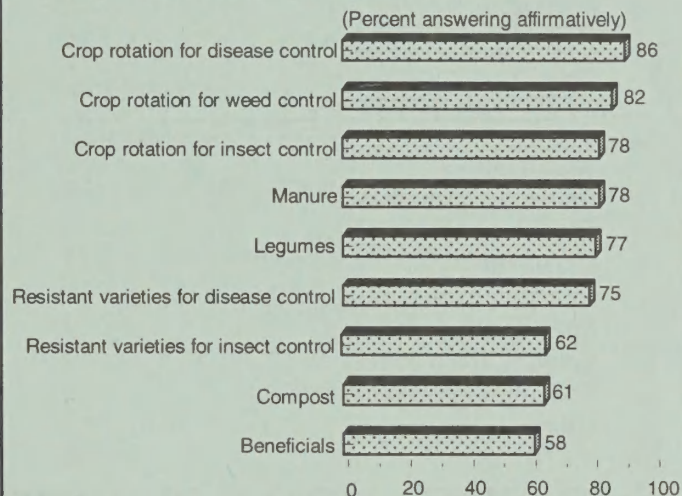
- About 300 certified organic vegetable producers in 13 major vegetable-growing States were surveyed in 1994. Most had become certified within the last 10 years.
- About half of the surveyed organic farmers marketed their organic produce directly to the consumer, 14 percent sold to a wholesaler, and 10 percent sold to a retailer.
- Most of the organic growers surveyed used crop rotation and resistant varieties for disease and insect control, and applied manure and compost as principal sources of nutrients.

This issue of AREI UPDATES summarizes information on characteristics of certified organic vegetable growers and the pest and nutrient practices they use. Organic farming focuses on the use of natural pesticides and fertilizers--such as beneficial insects, bacterial and viral pesticides, sulfur, oils, soaps, manure, compost, and cover crops--and restricts the use of synthetic chemicals. Organic certification services were provided in 1994 by 42 State and private programs.

The sample of 303 organic vegetable growers is close to one-fifth of all certified organic growers of vegetables (total estimated from Dunn, J.A., *Organic Food and Fiber: An Analysis of 1994 Certified Production in the United States*, USDA, Agric. Marketing Serv., Sept. 1995). The survey findings may or may not be representative of the the total. Only a partial list of certified organic growers was available at the time of the survey. The organic survey was part of the 1994 Vegetable Chemical Use Survey conducted by the National Agricultural Statistics Service in 14 major vegetable-producing States.

The crops most widely grown by the surveyed organic farmers were tomatoes, sweet corn, lettuce, strawberries, onions, and melons. Other crops organically grown were asparagus, broccoli, cabbage, carrots, cauliflower, cucumber, peas, bell peppers, snap beans, and spinach. The top five States in number of organic vegetable farmers surveyed were California (30 percent), Oregon (16 percent), Texas (11 percent), New York (11 percent), and Michigan (8 percent).

### Selected pest and nutrient management practices used by organic vegetable growers, 1994



Source: USDA, 1994 Vegetable Chemical Use Survey

Other States with surveyed organic growers were Arizona, Florida, Georgia, Illinois, New Jersey, North Carolina, Washington, and Wisconsin.

Most of the organic vegetable farmers surveyed were between the ages of 36 and 55, college educated, and listed farming as their primary occupation. Most did not work off the farm. Their most used sources of information for pest control were other growers, newsletters and trade magazines, and Extension advisors. Three-fifths had less than 5 acres of the main organic vegetable crop produced, while a few had over 50 acres. Very few had nonorganic production of the same main organic crop.

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### About AREI UPDATES

AREI UPDATES is a periodic series that supplements and updates information in **Agricultural Resources and Environmental Indicators (AREI)**, USDA, ERS, AH-705, Dec. 1994. UPDATES report recent data from surveys of farm operators and others knowledgeable about changing agricultural resource use and conditions, with only minimal interpretation or analysis. Please contact the individual listed at the end of the text for additional information about the data in this UPDATE. If you would like to be added to the mailing list or have other questions about AREI UPDATES or AREI, contact Richard Magleby, (202) 219-0436. [rmagleby@econ.ag.gov]



Table 1—Operational characteristics organic growers surveyed, 1994

Item	Percent of growers	Item	Percent of growers
<b>Main organic crop produced</b>		<b>State</b>	
Tomatoes, fresh market	21	California	30
Sweet corn, fresh market	18	Oregon	16
Lettuce	11	New York	11
Strawberries	8	Texas	11
Carrots	7	Michigan	8
Onions	7	Washington	6
Melons <sup>1</sup>	6	Georgia	4
Snap beans, fresh market	3	New Jersey	4
Broccoli	5	North Carolina	3
Asparagus	2	Wisconsin	3
Cabbage, fresh market	2	Arizona	2
Cauliflower	2	Florida	2
Cucumber	2	Illinois	1
Sweet corn, processing	2	Total <sup>2</sup>	100
Snap beans, processing	1		
Spinach, fresh market	1		
Tomatoes, processing	1		
Others	2		
Total <sup>2</sup>	100		
<b>Marketing channel most used</b>		<b>Most used source of information for pest control</b>	
Consumer direct	49	Other growers	23
Grocery wholesaler/distributor	14	Newsletters, trade magazines	21
Grocery retailer	10	Extension advisors	16
Grower cooperative	9	Organic certifying agent	13
Broker	7	Crop consultant/pest control advisor	7
Processor	4	Grower association	7
Packer or shipper	3	Extension publications	6
Sold to any other market	4	Farm supply/chemical dealer	5
Total <sup>2</sup>	100	Other (commercial scouting service, processor, radio, TV, special event or demonstrations)	3
		Total <sup>2</sup>	100
<b>Size of organic acreage</b>		<b>Attended extension courses in last 3 years</b>	
Less than 1 acre	22		48
1 - 4.9 acres	40		
5 - 9.9 acres	16		
10 - 49.9 acres	15		
50 acres and over	7		
Total <sup>2</sup>	100		

<sup>1</sup>Includes cantaloups, honeydews, and watermelons. <sup>2</sup>Percents may not add up to 100 because of rounding.

Source: USDA, 1994 Vegetable Chemical Use Survey.

**Table 2—Pest and nutrient management practices used by surveyed organic growers, 1994**

Practice used	Major organic crop produced							
	All	Broccoli	Carrots	Lettuce <sup>1</sup>	Onion	Sweet corn	Strawberry	Tomato
Percent of growers using practice								
Beneficial organisms for disease control	26	20	21	20	23	33	24	29
Beneficial organisms for insect control	46	53	42	60	45	42	*	48
Planted crops to encourage beneficial organisms	58	60	63	60	63	67	48	57
Cover crops for disease control	37	33	47	33	45	36	40	30
Cover crops for weed control	63	66	68	63	68	71	64	48
Mulched for disease control	38	na	26	20	41	40	60	46
Mulched for insect control	35	na	21	17	32	42	56	40
Mulched for weed control	54	27	47	40	59	64	72	57
Crop rotation for disease control	86	93	95	87	91	89	84	78
Crop rotation for insect control	82	87	95	87	91	87	76	70
Crop rotation for weed control	78	80	95	70	82	76	84	70
Biological soil testing for disease control	17	*	na	10	18	20	16	14
Biological soil testing for insect control	16	*	16	10	*	22	16	13
Planted trap crops for insect control	20	*	*	20	32	24	16	21
Resistant varieties for disease control	75	87	68	73	63	80	80	71
Resistant varieties for insect control	62	60	63	63	50	71	56	56
Legumes crops to increase soil nitrogen	77	100	79	90	82	85	56	67
Manure applied to organic crop acres	78	73	68	87	77	82	84	78
Compost applied to organic crop acres	61	53	53	60	73	65	64	63
Water management for disease control	44	80	42	67	55	31	36	43
Water management for insect control	33	40	32	47	41	27	28	33
Water management for weed control	44	60	42	80	45	33	28	46
Adjusted planting dates for disease control	44	47	37	50	41	51	36	35
Adjusted planting dates for insect control	54	53	63	50	45	56	44	41
Adjusted planting dates for weed control	43	40	42	43	45	53	40	32
Scouting for pests <sup>2</sup>	97	100	89	100	95	94	96	95
Number of growers								
Number of growers surveyed	303 <sup>3</sup>	15	19	30	22	55	25	63

na=Not available. \*=less than 10 percent.

<sup>1</sup>Includes all types except head lettuce. <sup>2</sup>The majority was done by the operator, family, or employees. <sup>3</sup>Includes other vegetable crops not listed on the table.

Source: USDA, 1994 Vegetable Chemical Use Survey.

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Table 3—Characteristics of certified organic growers surveyed, 1994

Grower characteristic	Percent of growers	Grower characteristic	Percent of growers
<b>Year that grower became certified</b>		<b>Days grower worked off farm per year</b>	
1970 - 75	3	0	61
1976 - 80	4	1 - 100	17
1981 - 85	12	101 - 200	11
1986 - 90	50	201 - 360	11
1991 - 94	31	Total	100
Total	100		
<b>Age of grower, years</b>		<b>Years grower has operating the farm</b>	
25 - 35	10	1 - 5	22
36 - 45	44	6 - 10	24
46 - 55	31	11 - 15	20
56 - 65	10	16 - 20	18
66 - 80	6	21 - 25	7
Total	100	26 - 30	4
		31 - 55	4
		Total	100
<b>Education of grower</b>		<b>Primary occupation of grower</b>	
Less than high school (HS)	4	Farm operator	79
Completed high school	15	Hired farm manager	3
Vocational training after HS	2	Non-farm work	18
Some college	28	Total	100
Completed college	34		
Graduate school	18	<b>Grower grew up on farm</b>	43
Total	100		

Totals may not add up to 100 because of rounding.

Source: USDA, 1994 Vegetable Chemical Use Survey.

#### AREI UPDATES

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